# PATENT COOPERATION TREATY PCT

REC'D	08	FEB	2005
WIPO			PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

			ent's file reference	FOR FURTHER A	CTION See	Notification of Tra	ansmittal of International	
F17663 DMD		ON PORTIER A			on Report (Form PCT/IP)	EA/416)		
International application No. PCT/IB 03/05388		International filing date 25.11.2003	(day/month/yea		ity date (day/month/year)			
Inter	mation	al Pat	ent Classification (IPC) or be	oth national classification	and IPC			
G0	1M17	<i>l</i> 04						
ļ								
App	licant							<del> </del>
SH	OCK-	DOC	LTD et al.					
This international preliminary examination report has been prepared by this International Preliminary Examining     Authority and is transmitted to the applicant according to Article 36.								
2.	This	REF	ORT consists of a total of	of 6 sheets, including	this cover she	et.		
		Thi	rapartia alaa aasamna	alad by ANNEYEO i a	abaata -615-			
	Ц	bee	s report is also accompain amended and are the l	basis for this report an	d/or sheets co	ntaining rectifica	tions made before this	hich have Authority
		(se	e Rule 70.16 and Section	n 607 of the Administra	tive Instructio	ns under the PC	T).	•
	The	se an	nexes consist of a total o	of sheets.				
3.	Thio	rana	rt contains indications re	lating to the fallenting:	<b>1</b>			
٥.	11115	_	rt contains indications re	lating to the following i	tems:			
	I		Basis of the opinion					
	11		Priority					
	III		Non-establishment of o	•	novelty, inven	ive step and ind	ustrial applicability	
	IV		Lack of unity of inventi					•
	V	$\boxtimes$	Reasoned statement u citations and explanation	inder Hule 66.2(a)(ii) w ons supporting such si	rith regard to r tatement	ovelty, inventive	e step or industrial app	licability;
	VI		Certain documents cite	•				
	VII		Certain defects in the i	nternational application	n			
	VIII		Certain observations o	n the international app	lication			
Date	of sub	missio	on of the demand		Date of comp	letion of this repor	t	
			i					
25.0	6.200	04	Lawrence of the law of		04.02.200	5		i
Name and malling address of the latest the states of the latest th								
Name and mailing address of the international preliminary examining authority:  Authorized Officer			atteches Patentes.					
European Patent Office D-80298 Munich Dighaye, J-L								
		Te	i. +49 89 2399 - 0 Tx: 52365 x: +49 89 2399 - 4465	66 epmu d				
		ra.	A. THO OO 2000 - 4400		Telephone N	o. +49 89 2399-28	23	South outing . way.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IB 03/05388

l. Basis	of the	report
----------	--------	--------

1. With regard to the **elements** of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	Des	scription, Pages				
	1-1	1	as published			
	Cla	ims, Numbers				
	1-18	3	as published			
	Dra	wings, Sheets				
	1/5-	5 <i>/</i> 5	as published			
2.	With regard to the <b>language</b> , all the elements marked above were available or furnished to this Authority ir language in which the international application was filed, unless otherwise indicated under this item.					
These elements were available or furnished to this Authority in the following language: , which is:						
		the language of a tra	anslation furnished for the purposes of the international search (under Rule 23.1(b)).			
		the language of pub	lication of the international application (under Rule 48.3(b)).			
		the language of a tra Rule 55.2 and/or 55.	anslation furnished for the purposes of international preliminary examination (under 3).			
3.	Witl inte	n regard to any <b>nucle</b> rnational preliminary	ectide and/or amino acid sequence disclosed in the international application, the examination was carried out on the basis of the sequence listing:			
		contained in the international application in written form.				
		filed together with th	e international application in computer readable form.			
		furnished subsequently to this Authority in written form.				
		furnished subsequently to this Authority in computer readable form.				
		The statement that t in the international a	he subsequently furnished written sequence listing does not go beyond the disclosure pplication as filed has been furnished.			
		The statement that t listing has been furn	he information recorded in computer readable form is identical to the written sequence ished.			
4.	The	amendments have r	esulted in the cancellation of:			
		the description,	pages:			
		the claims,	Nos.:			
		the drawings,	sheets:			

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IB 03/05388

5. 🗆	This report has been established as if (some of) the amendments had not been made, since they have
	been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

No:

1-18

Inventive step (IS)

Yes: Claims

No: Claims

Claims

1-18

Industrial applicability (IA)

Yes: Claims No: Claims 1-18

2. Citations and explanations

see separate sheet



#### **EXAMINATION REPORT - SEPARATE SHEET**

#### Preliminary remark:

Due to delays caused by double-checking of incorrectly cited documents in the International Search Report (ISR; see below), the present international preliminary examination report is directly issued.

1. The following documents are cited:

D1: EP-A- 355 398 (additionally F1: US-A-4 979 388 family member of D1)

D2: EP-A- 18 959

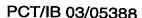
D3: US-A-6 019 495

D4: AU-A-2000 71537

D5: JP-A-59 006306 (abstract only)

D6: ZA-A-94 06337 (abstract only)

- 2. D4 is an application of Canon Kabushiki Kaisha entitled "Colour ink model processes for printers". The reference in the ISR also has Canon for applicant, and the publication date of the patent corresponding to D4 is the one indicated in the ISR. However, the technical field of the present application completely differs from that of D4, and no passages of D4 relate, even remotely, to the subjectmatter of the claims of this application, so that the present authority disregards the findings of the ISR indicating that D4 could be relevant to present claims 6 and 7.
- D1 is considered relevant to present method claim 1 (and corresponding system 3. claim 12) for the following reasons:
  - It discloses a shock absorber testing instrument (see the title);
  - The instrument comprises at least one electronic unit for recording vibrating movements of a vehicle body (D1, col. 1, II. 38-40). It is presented as a simplified or improved version of the prior art test stands (D1, col. 1, I. 12) for safety tests of acceleration-absorbing shock absorbers, thus the unit must operate as an accelerometer. This is corroborated by further prior art documents, see point 4 below:
  - Each unit is attached next to the car body portion where vibrations are to be measured; preferably, measurements are done corresponding to a shock absorber associated with each of the car's wheels (D1, Fig. 2; claim 1 of F1 is

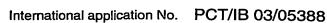


even more precise since "a sensor connectable to one of the shock absorbers of the vehicle" is mentioned). See also point 4 below;

- Signals are processed by a microprocessor 4 (D1, last line of col. 2 first line of col. 3), in order to indicate the condition of the shock absorber, i.e. its damping properties, compared against an assessment table (D1, col. 3, II. 34-36); and - Evaluated data are displayed by display unit 6 (D1, col. 3, II. 2-3; further details
- of the display unit are given later on in the description).

Hence the only possible differences of present claim 1 or claim 12 with respect to D1 (or F1) pertain to constructional details in the manner to attach the sensor to one or another part of a shock absorber, and in the language, which is more explicit (an "accelerator" is explicitly mentioned, as well the calculation of a "damping factor"; as seen above, however, D1 at least implicitly discloses similar features). Such mere constructional or formal differences cannot be regarded as inventive.

- D2 and D3, relating to the present technical field, provide further information, for 4. the skilled person, about those implicit features, for instance: the piezo-sensor of D1, col. 1, II. 44-45 is a preferred type of accelerometer (see D2, p. 2, para. 2); the disposition of the sensor(s) of D1 is of the usual configuration illustrated in Fig. 5 of D3 (see also D3, col. 4. I. 45 seq.); the condition of a shock absorber is usually estimated by a damping factor (see D3, col. 6, equation (5) and the following description).
- It is submitted that the features of the dependent claims are obvious as well. In 5. particular:
  - Claim 2 further specifies a location of the accelerometer similar to the teaching of the above-mentioned documents:
  - Claims 3-8 recite features well-known in data processing applications, in the field of shock absorbers (see D3) as well as in other technical fields (see the reference to the Nelder-Mead algorithm in D5);
  - A comparison between the actual condition of the shock absorber and qualitative data from a manufacturer (claim 9) is suggested in D1, col. 5, Il. 35-39, in that a "correct shock absorber" is mentioned, i.e. there must be a data set of nominal properties of shock absorbers, and, when the right data is selected, the actual performance must be compared against it. It is straightforward that an alarm



(claim 10) should be generated in case of unacceptable deviation;

- Repeating measurements for improved accuracy (claim 11) is trivial;
- Sets of mathematical calculations similar to those of claim 13 are known from D1, see e.g. the "page" function of D1, col. 3, I. 41 seq.;
- In most of the cited documents, the processor is not adjacent the accelerometer i.e. it is remote in the sense of claim 14. If no wire connection is desired, a wireless data link (claim 15) is provided, see abstract of D6. Connection with further peripherals (claim 16) is known from D1, see e.g. the "print" function of D1, col. 3, II. 37-40.
- 6. Claims 17 and 18 merely refer to the description and the drawing without specifying any feature which could support a possible inventive step.